

has not had any cases in animals which could have had any bearing on the causation.

The mother of Case IV took the child inside the house in which Case III was lying ill, but did not enter the bedroom. This was three days before her own child was attacked. Although Cases VI and VII reside a mile away, the grandfather lives in the village, and visits them once a week. I am assured, however, that he had not been in contact with the other cases. This is the only evidence of direct contact which I have been able to obtain, while, on the other hand, the five children attacked in the village were in separate houses, and no second cases occurred in these, although there were other children in each. As regards the two children who were attacked in the same house, the circumstances suggest a common source of infection rather than contact from one to the other. Neither were the children of their immediate neighbours affected, although isolation was not attempted, and communication was as free as usual. With the exception of the child who commenced with measles, I could get no history of nasal or pharyngeal catarrh, and only two had diarrhoea previously. It is noteworthy that, in spite of the character of the season, the village of Whittington was almost free from summer diarrhoea.

The only factor which appeared to be common to all was the plague of flies and wasps.

None of the cases proved fatal, and, although more or less paralysis remains, each case is still slowly improving.

A CASE OF POISONING BY OIL OF MIRBANE (NITRO-BENZOL).

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OIL of mirbane, known also as essence of mirbane—sometimes spelt "myrbane"—is a clear, bright yellow fluid, with a penetrating aromatic odour of an almond-like character. Caspar,¹ who first described it, says it is used in soap perfumery, but it seems nowadays to be used in the manufacture of blacking, and its peculiar odour is perceived on opening a fresh tin of shoe-blackening. Its specific gravity is 1180 to 1200. It is the product of the action of strong nitric acid on benzene.

W. Blythe quotes Jubell,² "that up to 1876, from the time of the discovery of the compound and its commercial use, 42 cases of poisoning were recorded, 13 of which proved fatal, one being suicidal and the rest accidental."

Caspar³ says the body, long after death, retains the strong odour of bitter almonds; whereas, in poisoning by prussic acid, the body soon loses the characteristic odour. The blood is dark and fluid, and it gives the spectrum of acid haematin.⁴

CASE.

Shortly after 11 p.m. I was asked by a woman to go at once and see her husband, who had taken poison. I could not gather its nature, so I took an emergency case with me. On entering the bedroom one perceived a peculiar odour of an almond-like character.

The patient was lying on his back in bed; the eyelids were open, and there was a slow nystagmus to the right. I was immediately struck with the purple colour of the lips—just, as one writer has described it, as if the lips were stained with blackberry juice. The skin was dusky in hue, the conjunctivae insensitive, and the pupils dilated. The limbs were relaxed. The breathing was somewhat embarrassed, the pulse could only just be detected; on auscultation the heart beats could be heard faintly, and the rhythm was irregular. The patient vomited once whilst I was in the room; the vomit had the same odour as the room.

The following history was obtained: The man had had tooth-ache the previous night, and on the advice of a fellow-workman had obtained some oil of mirbane at his works and applied it on cotton-wool to his teeth. Next morning he had felt drowsy, and had not felt fit to go to work. Later in the evening he got worse, and about 10 p.m. he became unconscious. Inasmuch as he had vomited and the poison had been absorbed it did not seem much use giving an emetic, so I ordered more blankets (the limbs were cold) and hot-water bottles to be applied, and gave the man 0.20 gram of caffeine hypodermically. At this time another medical man arrived (he was seen subsequently by still another). I saw him again at 1.30 a.m.; his condition had been improved slightly.

Next morning he was conscious, but his lips were blue, and there was still the persistent odour, exhaled from his body, filling the room. He made an uneventful recovery; the dusky complexion gave way to one of good colour and the pulse

became bounding. Nothing more was done beyond the ordering of the exhibition of plenty of fluid. I regret I did not examine the blood.

The points that struck me most were that this was not an ordinary want of oxygen blueness, for the breathing was not embarrassed to any marked extent, but that some profound blood change had taken place, as to the nature of which there are many speculations. It is said that the blood loses its power of oxygen carrying, and that the carbonic dioxide content is increased, but in view of the respiration this does not seem satisfactory. The sudden onset of the unconscious condition is to be noted; it came with the suddenness of cerebral haemorrhage, some hours after the nitro-benzol had been taken.

An artificial benz-aldehyde, not by any means so toxic, is now used in perfumery.

REFERENCES.

¹ Caspar's *Forensic Medicine*, vol. ii, p. 50 et seq. ² *Die Vergiftungen mit Blausäure v. Nitro-benzol in forensischer Beziehung*, Erlangen, 1876; W. Blythe, *Poisons*, v, 4th edition. ³ Caspar's *Forensic Medicine*, vol. ii, p. 50 et seq. ⁴ Filchner, Ueber die Giftwirkungen des Nitrobenzols, *Arch. für exper. Pathol. u. Pharm.*, ix, p. 329.

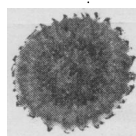
Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

AN UNUSUAL URINARY DEPOSIT OF CALCIUM CARBONATE.

I WAS much interested in Dr. W. Herbert Brown's communication in the *BRITISH MEDICAL JOURNAL*, January 6th (p. 9), because, though I have never met with a similar deposit during the microscopical examination of urine obtained in the ordinary way, I have found that a similar deposit is not rare in the contents of cysts of the renal cortex, when those contents have become more or less turbid and inspissated.

Dr. Brown's patient was a man, aged 65, suffering apparently from chronic interstitial nephritis, and it is therefore extremely probable that his kidneys contained cortical cysts, the contents of some of which may have been more or less turbid owing to a process of gradual inspissation. The inspissated contents of one or more of such cysts may have found their way into the urinary



tubules, and may thus have been discharged with the urine, giving rise to the unusual urinary deposit discovered by Dr. Brown.

The crystalline bodies in renal cysts, similar to those in the urine described by Dr. Brown, were circular or oval, as seen under the microscope, varying in size from three times the size of a leucocyte to much larger. They showed lines radiating outwards from the centre, and seemed to be enveloped by a clearer outer membrane; sometimes there were three or four concentric circular markings in addition to the radiating striation. They took on the ordinary blue stain with methylene blue. In August, 1895, I noted that these bodies were possibly crystals of calcium carbonate, deposited in an albuminous medium, but I am afraid that I neglected to prove them to be so. On pressure with the cover-slip, they broke up, and doubtless were really spherical (not flat, circular) bodies, having a structure exactly similar to the balls of iron pyrites, which one may pick up any day on the beach of the "Warren" at Folkestone. I here figure drawings of some of the bodies (one of them showing the outer, membrane-like, layer partially detached) which I found in the turbid contents of renal cysts about 1895. I had previously noticed the presence of similar bodies on examining the contents of renal cysts when I was a student, or a member of the resident staff at St. Bartholomew's Hospital. I believe that bodies with a similar appearance have been described as leucine, deposited in globular masses, with concentrically thickened walls and fissured surfaces. Possibly some of the bodies,